



Hexion Specialty Chemicals, Inc.

16122 River Road
Norco, LA 70079

LDEQ RECEIPT

August 31, 2006

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Louisiana Department of Environmental Quality
Office of Environmental Services
Environmental Assistance Division
Public Participation Group
602 North 5th Street
Baton Rouge, LA 70802

SUBJECT: DRAFT NOTIFICATION OF INTENT TO COMPLY (NIC)
40 CFR 63 SUBPART EEE -NATIONAL EMISSION STANDARDS FOR
HAZARDOUS AIR POLLUTANTS FROM HAZARDOUS WASTE COMBUSTORS
HEXION SPECIALTY CHEMICALS, INC
EPA ID LAD 980622104
LDEQ Agency Interest # 87883

In accordance with 40 CFR 63.1210(b)(1) and (b)(2), Hexion Specialty Chemicals, Inc. (Hexion) is making available for public review a draft version of its Notice of Intent to Comply (NIC) in the format recommended by the agency.

If you have any questions please contact Andrea Perez at (504) 472-6563.

Sincerely,

Paul Barletta
Site Manager

Attachment

NOTIFICATION OF INTENT TO COMPLY (NIC):

40 CFR 63 SUBPART EEE – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS
FROM HAZARDOUS WASTE COMBUSTORS (“HWC NESHP”)Check the appropriate box: ☒ Initial NIC ☐ Revised NIC

Part I: General Information

OPERATOR INFORMATION:	
Facility Name: Hexion Specialty Chemicals, Inc.	USEPA RCRA ID No. LAD980622104
Physical Address: 16122 River Road Norco, Louisiana 70079	
Contact: Andrea Perez	Title: EHS Manager
Mailing Address: 16122 River Road Norco, Louisiana 70079	
Email Address: andrea.perez@hexion.com	
Phone No.: 504-472-6563	Fax No. 817-375-2742
OWNER INFORMATION:	
Company Name: same	
Contact: same	Title: same
Mailing Address: same	
Email Address: same	
Phone No.: same	Fax No.: same

Part II: Schedule of events

KEY ACTIVITIES AND SCHEDULED DATES:	
Activity	Actual or Scheduled Date(s)
Start engineering studies	March 2006
Conduct NIC meeting	10/03/2006
Complete engineering studies	October 2006
Award contracts/issue purchase orders for emissions control systems and process changes	December 2006
Submit construction permit applications	January 2007
Finalize construction contracts/complete equipment orders	March 2007
Initiate contracted work and equipment installation	May 2007
Complete contracted work and equipment installation	August 2007
Certify final compliance (by placing DOC in operating record)	10/14/2008
Begin initial comprehensive performance test	10/14/2009
Submit Notification of Compliance	3/13/2010
Commence work to revise existing RCRA and CAA Title V permits	4/1/2010

Part III: Information for sources that will comply with the HWC NESHAP

Type of Source: Incin	RCRA Unit Name: NCIN-1	Air Unit Name: EPN 173
If permitted, permit numbers and dates (optional):		
<ul style="list-style-type: none"> RCRA permit LAD980622104, January 1990 (currently undergoing renewal) CAA permit 2252-V0, January 1998 		
CAA Designation:	(<input checked="" type="checkbox"/>) Major	(<input type="checkbox"/>) Area
EMISSIONS CONTROL TECHNIQUES CONSIDERED OR TO BE CONSIDERED:		
Pollutant	Emission Control Technique	Effectiveness
HCL	Upgrade Existing Scrubbing System	Unit is currently compliant based on interim standards. Upgrade will allow a 99.99% removal efficiency that will have emissions well within the promulgated final standards.
EVALUATION CRITERIA FOR SELECTING EMISSION CONTROL TECHNIQUES:*		
Control Technique	Criteria Description	
Upgrade Scrubbing System	Removal efficiency performance based on prior stack test results, engineering evaluations, process design considerations, operability considerations. In addition, design will be similar to NCIN-2 which has demonstrated 99.99% removal efficiency and is in compliance with the promulgated standards.	
EMISSION MONITORING TECHNIQUES:		
Pollutant	Technique	
HCL	Operating parameter monitoring as required by rule (e.g. chlorine feedrate, scrubber pH, etc)	

* Evaluation criteria may include, but are not necessarily limited to, vendor guarantees, stack testing, engineering evaluations, etc. You can include details on criteria you consider as attachments.

Part III: Information for sources that will comply (continued)

WASTE MINIMIZATION AND EMISSION CONTROL TECHNIQUES CONSIDERED OR TO BE CONSIDERED:	
Waste Minimization And Emission Control Technique	Effectiveness
See Attachment 2 for information on waste minimization and emission control analyses	
EVALUATION CRITERIA FOR SELECTING WASTE MINIMIZATION AND EMISSION CONTROL TECHNIQUE:*	
Technique	Criteria Description
See Attachment 2 for information on waste minimization and emission control analyses	
ADDITIONAL COMMENTS:	
None	

* Evaluation criteria may include, but are not necessarily limited to, vendor guarantees, stack testing, engineering evaluations, etc. You can include details on criteria you consider as attachments.

Part IV: Information for sources that will not comply with the HWC NESHAP

☐ Applicable

☒ Not Applicable

Part V: List of Attachments

Please itemize all attachments to the NIC.

LIST OF ATTACHMENTS	
1.	Compliance Option Evaluations
2.	Summary of Public Meeting to Be Provide After Meeting Is Conducted on October 3, 2006.

Part VI: Certification

The person who signs below must be an authorized representative as defined in 40 CFR 63.1212(a)(2).

- I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Print Name: Paul Barletta

Title: Site Manager **Date:** 08/31/06

Signature: 

Item-by-Item Reviews

Waste minimization and emission control technique(s) being considered	<u>ACHE Reduction Using New Reactor Technology</u> <u>Summary of Waste Min Concept</u> Increase product yield by changing production technology thereby decrease ACHE production.
Waste minimization and emission control technique(s) effectiveness	<u>Capital Cost:</u> \$5-7 million
	<u>Waste Reduction:</u> 7.4 million lb/yr. ACHE
	<u>Annual Cost Benefit:</u> Total Benefit: \$3.25 million /yr
	<u>Payout Time:</u> Assuming \$4 million for reactors = 1.8 yrs
	<u>Expected Emissions Reductions</u> At maximum waste feed rates after waste minimization activity we estimate that: - HCL will be reduced by 10% but still exceed standard by 186%
	<u>Other Considerations:</u> Other plants still experimenting with the technology.
A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s)	See Table 1 below for evaluation discussion.

Waste minimization and emission control technique(s) being considered	<p><u>Convert TCP to Soil Fumigant</u></p> <p><u>Summary of Waste Min Concept</u></p> <p>Remove ECH byproduct from TCP Residue waste stream (by conversion to a product).</p>
Waste minimization and emission control technique(s) effectiveness	<p><u>Capital Cost:</u> ~\$5 MILLION for some type of reaction vessel</p>
	<p><u>Waste Reduction:</u></p> <p>3.0 million lb/yr TCP Residue</p>
	<p><u>Annual Cost Benefit:</u></p> <p>Unknown. Market for fumigant is uncertain and would compete with existing suppliers.</p>
	<p><u>Payout Time:</u> Not evaluated. Uncertainties in market make fumigant profitability difficult to predict.</p>
	<p><u>Expected Emissions Reductions</u></p> <p>At maximum waste feed rates after waste minimization activity we estimate that:</p> <ul style="list-style-type: none"> - HCL will be reduced by 4% but still exceed standard by 198%
	<p><u>Other Considerations:</u></p> <p>Previous evaluations of distilling a waste stream to recover fumigant established initial capital cost around ~\$20 MILLION. With market uncertainties this level of capital investment could not be justified.</p>
A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s)	<p>See Table 1 below for evaluation discussion.</p>

<p>Waste minimization and emission control technique(s) being considered</p>	<p><u>Reduce ECH Byproducts By Improved Reactor Design</u></p> <p><u>Summary of Waste Min Concept</u></p> <p>Optimize reactor design to minimize ECH byproducts.</p>
<p>Waste minimization and emission control technique(s) effectiveness</p>	<p><u>Capital Cost:</u> Not evaluated- see Other Considerations, below <u>Installation Time:</u> Not evaluated- see Other Considerations, below <u>Lost Production:</u> Not evaluated- see Other Considerations, below</p> <p><u>Waste Reduction:</u> Not evaluated- see Other Considerations, below <u>Annual Cost Benefit:</u> Not evaluated- see Other Considerations, below <u>Payout Time:</u> Not evaluated - see Other Considerations, below <u>Expected Emissions Reductions</u> Not evaluated. <u>Other Considerations:</u></p> <p>Optimization of this process has been evaluated several times in the past; however, current reactor technology does not allow this to be a viable option at this time. In addition, noise in data and imprecision in measurement instruments has prevented further optimization.</p>
<p>A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s)</p>	<p>See Table 1 below for evaluation discussion.</p>

<p>Waste minimization and emission control technique(s) being considered</p>	<p><u>TCP Residue Sales</u></p> <p><u>Summary of Waste Min Concept</u></p> <p>Sell TCP Residue waste stream as feedstock to another company's process.</p>
<p>Waste minimization and emission control technique(s) effectiveness</p>	<p><u>Capital Cost:</u> Not evaluated- see Other Considerations below <u>Installation Time:</u> Not evaluated- see Other Considerations below <u>Lost Production:</u> Not evaluated- see Other Considerations below</p>
	<p><u>Waste Reduction:</u></p> <p>Notionally up to 100% of TCP Residue annual stream; therefore, a potential maximum reduction = 28 MILLION lb/yr.</p>
	<p><u>Annual Cost Benefit:</u></p> <p>The value would be the value of TCP Residue sales to the 3rd party. Not further evaluated- see Other Considerations below</p>
	<p><u>Payout Time:</u></p> <p>Not evaluated- see Other Considerations below</p>
	<p><u>Expected Emissions Reductions</u></p> <p>At maximum waste feed rates after waste minimization activity we estimate that:</p> <ul style="list-style-type: none"> - HCL will be reduced by 39% but still exceed standard by 127%
<p>A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s)</p>	<p>Relying on market conditions for long term compliance is unrealistic.</p> <p>For the above to reasons, further evaluation of this option is not pursued.</p>

Waste minimization and emission control technique(s) being considered	<p><u>Offsite Incineration</u></p> <p><u>Summary of Waste Min Concept</u></p> <p>Cease onsite incineration of all wastes, paying a 3rd party company to dispose (by incineration).</p>
Waste minimization and emission control technique(s) effectiveness	<p>The approach would be 100% effective in meeting MACT compliance requirements.</p>
A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s)	<p>Offsite disposal alone would cost an ADDITIONAL \$7-9 million/year (offsite cost minus onsite cost). Offsite disposal is also inconsistent with current agency guidance that companies manage and treat their own wastes. Onsite treatment minimizes exposures and safety concerns associated with loading and transfer. Onsite disposal retains control of the waste by specifically knowledgeable and trained on-site personnel and a cost effective means in waste treatment.</p> <p>Finally, uncertainties in market conditions (continued availability of offsite disposal capacity) add an additional layer of business uncertainty to this option, which could affect current or future production</p> <p>For the above to reasons, further evaluation of this option is not pursued.</p>

Waste minimization and emission control technique(s) being considered	<p><u>End of Pipe Controls</u></p> <p><u>Summary of Emission Control Concept</u></p> <p>For HCL compliance at NCIN-1, evaluations are being made to change the existing air pollution control devices (APCD) to achieve sufficient reductions. The HCL absorber would be modified and a new caustic scrubber would be added. This design is similar to the design of the current NCIN-2 system which is in compliance with the promulgated standards.</p>
Waste minimization and emission control technique(s) effectiveness	<p><u>Expected Emissions Reductions</u></p> <p>At maximum waste feed rates after installation of the controls we estimate that:</p> <ul style="list-style-type: none"> - HCL will be reduced by 99.99% at NCIN-1 which will be sufficient to meet the HCL standard
A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s)	<p>The revision to the APCD at NCIN-1 is considered the lowest cost option for end of pipe controls that can be reasonably applied at the incinerator and still be expected to ensure MACT compliance for HCL emissions.</p>

Table 1: A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s)

Evaluation Criteria. For a waste minimization/control technique action to be selected, it must provide long term and realistic benefits. Such long term benefits include:

1. Emissions are in compliance with the HWC MACT standards (either alone or in combination with multiple waste minimization actions);
2. Avoid impacting the facility's current or future production capacity;
3. Be profitable, or if not profitable carry acceptable operating costs (e.g. relative to operating cost for end-of-pipe controls).
4. For project-related considerations, is the payout period less than about 1 to 2 years (if the action is profitable)?

The following table summarizes each waste minimization/control option activity above against these criteria.

Note- the only pollutants of concern are DF and HCL. All other MACT emission limits are currently being met.
Note- a "YES" indicates an acceptable impact in a given area.

Action	What is Expected % Reduction in HCL Emissions?	Overall Result in MACT Compliance?	Will retain Production Capacity?	Cost Benefit?	Is payout period < 1 to 2 years?	For options with no cost benefit, are capital cost/operating costs comparable to end-of-pipe controls?	Other Considerations
ACHE Reduction using New Reactor Technology	10%	NO	YES	YES	Marginal	N/A	N/A
Convert TCP to Fumigant	4%	NO	YES	Unknown	Unknown	Unknown	N/A
Reduce ECH Byproducts By Improved Reactor Design	Unknown	Unknown	Possibly Not	Possibly Not	Unknown	N/A	N/A
TCP Sales	39%	NO	YES	YES	N/A	N/A	Very uncertain: relies on market conditions to ensure success
Offsite Incineration	100% *	YES	NO	NO	NO	Probably	High cost of offsite disposal relative to onsite incineration precludes use of this option.
End of Pipe Controls	99.99%	YES	YES	NO	N/A	YES	N/A

* This represents emissions reductions at facility. Emissions at the offsite waste treater's facility would increase but would also presumably be subject to 40 CFR 63 Subpart EEE.

Overall Summary

Reviewing the summary table above it seems clear that the best option for compliance with the 40 CFR 63 Subpart EEE is end of pipe controls. All other options (considered alone or even together) entail unfavorable combinations of the following:

- overall majority will not result in MACT Compliance,
- undue costs (initial and long term),
- additional technological development,
- place an unrealistic reliance on market conditions.